

## EAST Search History

| Ref # | Hits | Search Query   | DBs                | Default Operator | Plurals | Time Stamp          |
|-------|------|--|--------------------|------------------|---------|---------------------|
| S1    | 1    | "10/553616"  | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/14<br>18:07 |
| S2    | 35   | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same (revers \$3))   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/14<br>18:17 |
| S3    | 54   | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same (revers \$3 ((switch\$3 chang\$3 opposite) near3 direction))))  | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/17<br>11:22 |
| S4    | 0    | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((pass \$3 near3 (target\$3 near3 (layer surface))) with (revers\$3 ((switch \$3 chang\$3 opposite) near3 direction)))) | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/17<br>11:44 |
| S6    | 0    | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((pass \$3 near3 (layer surface)) same (revers \$3 ((switch\$3 chang\$3 opposite) near3 direction))))                   | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/17<br>11:45 |
| S5    | 0    | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((pass \$3 near3 (target\$3 near3 (layer surface))) same (revers\$3 ((switch\$3 chang\$3 opposite) near3 direction))))  | US-PGPUB;<br>USPAT | OR               | ON      | 2008/03/17<br>11:45 |

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| S8  | 1  | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same (((amplitude quantity) near3 (less\$2 below) near3 (threshold level)) (s\$1wave s \$1shaped s\$1curve s \$1shape ("s" adj1 (shap \$3 curve wave)) (zero adj1 cross\$3))) with (revers\$3 ((switch\$3 chang\$3 opposite) near3 direction)))) | US-PGPUB; USPAT | OR | ON | 2008/03/17 11:49 |
| S7  | 10 | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same (((amplitude quantity) near3 (less\$2 below) near3 (threshold level)) (s\$1wave s \$1shaped s\$1curve s \$1shape ("s" adj1 (shap \$3 curve wave)) (zero adj1 cross\$3))) same (revers\$3 ((switch\$3 chang\$3 opposite) near3 direction)))) | US-PGPUB; USPAT | OR | ON | 2008/03/17 11:49 |
| S9  | 37 | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((revers \$3 switch\$3 chang\$3 opposite) near3 (direction away toward)))   | US-PGPUB; USPAT | OR | ON | 2008/03/17 11:56 |
| S10 | 32 | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((revers \$3 switch\$3 chang\$3 opposite) near3 (direction))))  | US-PGPUB; USPAT | OR | ON | 2008/03/17 11:57 |

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| S11 | 16 | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((revers \$3 switch\$3 chang\$3 opposite) near3 (direction))) and (((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface))))  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/17<br>11:59 |
| S12 | 94 | "369".clas. and (((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in))) same ((revers\$3 switch\$3 chang\$3 opposite) near3 (direction))) and (((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface))))                                 | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/17<br>12:03 |
| S13 | 99 | "369".clas. and (((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in))) same ((mov\$3 with toward with away) ((revers\$3 switch\$3 chang\$3 opposite) near3 (direction))) and (((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface)))) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/17<br>12:07 |

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| S14 | 20  | "369".clas. and (((focus \$4 focal) near3 (search \$3 pull\$1in (pull\$3 adj1 in))) same ((mov \$3 with toward with away) ((revers\$3 switch\$3 chang\$3 opposite) near3 direction))) and (((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface)))) | US-PGPUB; USPAT | OR | ON | 2008/03/17 12:08 |
| S15 | 31  | "369".clas. and ((detect \$3 determin\$5) near5 ((pass\$3 past) near3 ((surface layer) near2 (information record\$3 data))))  | US-PGPUB; USPAT | OR | ON | 2008/03/18 10:46 |
| S16 | 8   | "369".clas. and ((detect \$3 determin\$5) near5 ((pass\$3 past) near3 ((surface layer) near2 (information record\$3 data)))) near4 (focus focal)  | US-PGPUB; USPAT | OR | ON | 2008/03/18 10:48 |
| S17 | 508 | "369".clas. and (((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in))) and (((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface))))   | US-PGPUB; USPAT | OR | ON | 2008/03/18 11:31 |

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| S18 | 61 | "369".clas. and ((focus\$4 focal) near3 (jump\$3 search\$3 pull\$1in (pull\$3 adj1 in))) and ((information record\$3 data writ\$3) near3 (multi\$1layer multi\$1layered multi\$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface)))) and (fes fe ((focus\$4 focal) near3 error near5 ((zero near2 cross\$3) zc\$1 s\$1wave s\$1shaped s\$1curve s\$1shape ("s" adj1 (shap\$3 curve wave)))) and (fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less\$2 greater compar\$3) near3 (reference level)))))) | US-PGPUB; USPAT | OR | ON | 2008/03/18 11:40 |
| S19 | 2  | (battaglia.xa. battaglia.xp.) and S17   | US-PGPUB; USPAT | OR | ON | 2008/03/18 11:43 |
| S21 | 49 | "369".clas. and ((focus\$4 focal) near3 (jump\$3 search\$3 pull\$1in (pull\$3 adj1 in))) and ((information record\$3 data writ\$3) near3 (multi\$1layer multi\$1layered multi\$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface)))) and (((fes fe ((focus\$4 focal) near3 error)) near5 ((zero near2 cross\$3) zc\$1 s\$1wave s\$1shaped s\$1curve s\$1shape ("s" adj1 (shap\$3 curve wave)))) and (rfok fok ((amplitude  | US-PGPUB; USPAT | OR | ON | 2008/03/18 11:54 |

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|     |    | quantity sum<br>summation) near6<br>(threshold ((above<br>below higher lower less<br>\$2 greater compar\$3)<br>near3 (reference<br>level))))  |                        |    |    |                     |
| S20 | 49 | "369".clas. and ((focus<br>\$4 focal) near3 (jump<br>\$3 search\$3 pull\$1in<br>(pull\$3 adj1 in))) and<br>(((information record\$3<br>data writ\$3) near3<br>(multi\$1layer multi<br>\$1layered multi<br>\$1surface layers!<br>surfaces! ((dual second<br>plural\$3 multiple)<br>near3 (layer\$3<br>surface)))) and (((fes<br>fe ((focus\$4 focal)<br>near3 error)) near5<br>((zero near2 cross\$3)<br>zc\$1 s\$1wave s<br>\$1shaped s\$1curve s<br>\$1shape ("s" adj1 (shap<br>\$3 curve wave)))) and<br>(fok ((amplitude<br>quantity sum<br>summation) near6<br>(threshold ((above<br>below higher lower less<br>\$2 greater compar\$3)<br>near3 (reference<br>level)))) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/18<br>11:54 |
| S22 | 56 | "369".clas. and ((focus<br>\$4 focal) near3 (jump<br>\$3 search\$3 pull\$1in<br>(pull\$3 adj1 in))) and<br>(((information record\$3<br>data writ\$3) near3<br>(multi\$1layer multi<br>\$1layered multi<br>\$1surface layers!<br>surfaces! ((dual second<br>plural\$3 multiple)<br>near3 (layer\$3<br>surface)))) and (((fes<br>fe ((focus\$4 focal)<br>near3 error)) near5<br>((zero near2 cross\$3)  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/18<br>12:42 |

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|-----|---|---|------------------------|----|----|---------------------|
|     |   | zc\$1 s\$1wave s<br>\$1shaped s\$1curve s<br>\$1shape ("s" adj1 (shap<br>\$3 curve wave)))) and<br>(rfok fok ((amplitude<br>quantity sum<br>summation) near6<br>(threshold ((above<br>below higher lower less<br>\$2 greater compar\$3)<br>near3 (predetermined<br>reference level))))))  |                        |    |    |                     |
| S24 | 4 | "369" clas. and (((focus<br>\$4 focal) near3 (jump<br>\$3 search\$3 pull\$1in<br>(pull\$3 adj1 in))) and<br>((information record\$3<br>data writ\$3) near3<br>(multi\$1layer multi<br>\$1layered multi<br>\$1surface layers!<br>surfaces! ((dual second<br>plural\$3 multiple)<br>near3 (layer\$3<br>surface)))) and (((fes<br>fe ((focus\$4 focal)<br>near3 error)) near5<br>((zero near2 cross\$3)<br>zc\$1 s\$1wave s<br>\$1shaped s\$1curve s<br>\$1shape ("s" adj1 (shap<br>\$3 curve wave)))) and<br>(rfok fok ((amplitude<br>quantity sum<br>summation) near6<br>(threshold ((above<br>below higher lower less<br>\$2 greater compar\$3)<br>near3 (predetermined<br>reference level))))))<br>and ((switch\$3 chang<br>\$3 revers\$3) near4<br>direction near6<br>(objective lens)) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/18<br>12:43 |

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| S23 | 1 | "369".clas. and ((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in))) and ((information record\$3 data writ\$3) near3 (multi\$1layer multi \$1layered multi \$1surface layers! surfaces! ((dual second plural\$3 multiple) near3 (layer\$3 surface)))) and (((fes fe ((focus\$4 focal) near3 error)) near5 ((zero near2 cross\$3) zc\$1 s\$1wave s \$1shaped s\$1curve s \$1shape ("s" adj1 (shap \$3 curve wave)))) and (rfok fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less \$2 greater compar\$3) near3 (predetermined reference level)))) and ((switch\$3 chang \$3) near4 direction near6 (objective lens)) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/18<br>12:43 |
| S25 | 2 | "369".clas. and ((rfok fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less \$2 greater compar\$3) near3 (predetermined reference level)))) same ((revers\$3 switch \$3 chang\$3) near4 (movement mov\$3 direction) near3 (objective lens converging)))   | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/18<br>14:11 |



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| S26 | 3    | "369".clas. and ((rfok fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less \$2 greater compar\$3) near3 (predetermined reference level)))))) same ((revers\$3 switch \$3 chang\$3) near4 (movement mov\$3 direction) near3 (head search\$3 lens pick\$1 up (pick adj 1 up))))                                | US-PGPUB; USPAT | OR | ON | 2008/03/18<br>14:12 |
| S27 | 7    | "369".clas. and ((rfok fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less \$2 greater compar\$3) near3 (predetermined reference level)))))) same ((revers\$3 switch \$3 chang\$3 stop\$4 brak\$3 slow\$3) near4 (movement mov\$3 direction motion) near3 (head search\$3 lens pick\$1 up (pick adj 1 up)))) | US-PGPUB; USPAT | OR | ON | 2008/03/18<br>14:16 |
| S28 | 1563 | "369".clas. and ((pass \$3 past over\$1 run\$4 over\$1 shoot\$3 (over adj 1 (run\$4 shoot\$3))) near3 ((target information data record \$3 writ\$3) near3 (layer surface)))   | US-PGPUB; USPAT | OR | ON | 2008/03/18<br>14:22 |
| S29 | 467  | ((pass\$3 past over \$1 run\$4 over\$1 shoot \$3 (over adj 1 (run\$4 shoot\$3))) near3 ((target information data record\$3 writ\$3) near3 (layer surface)))   | EPO; JPO        | OR | ON | 2008/03/18<br>14:23 |

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| S31 | 3   | ((pass\$3 past over \$1run\$4 over\$1shoot \$3 (over adj1 (run\$4 shoot\$3))) near3 ((target information data record\$3 writ\$3) near3 (layer surface))) and ((focus\$4 focal) near3 (jump\$3 search \$3 pull\$1in (pull\$3 adj1 in)))                   | EPO; JPO        | OR | ON | 2008/03/18 14:24 |
| S30 | 130 | "369".clas. and ((pass \$3 past over\$1run\$4 over\$1shoot\$3 (over adj1 (run\$4 shoot\$3))) near3 ((target information data record \$3 writ\$3) near3 (layer surface))) and ((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in)))  | US-PGPUB; USPAT | OR | ON | 2008/03/18 14:24 |
| S32 | 24  | "369".clas. and ((pass \$3 past over\$1run\$4 over\$1shoot\$3 (over adj1 (run\$4 shoot\$3))) near3 ((target information data record \$3 writ\$3) near3 (layer surface))) same ((focus \$4 focal) near3 (jump \$3 search\$3 pull\$1in (pull\$3 adj1 in))) | US-PGPUB; USPAT | OR | ON | 2008/03/18 14:27 |
| S33 | 20  | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same timer)   | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:42 |
| S35 | 50  | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) with (tim\$3 near3 (start\$3 begin \$4)))   | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:43 |
| S34 | 76  | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (tim\$3 near3 (start\$3 begin \$4)))   | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:43 |

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| S36 | 63 | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (tim\$3 with (revers\$3 switch \$3)))  | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:44 |
| S38 | 26 | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) )))              | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:45 |
| S37 | 6  | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (tim\$3 with ((revers\$3 switch \$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) ))) | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:45 |
| S39 | 58 | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) and (tim\$3 with ((revers\$3 switch \$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) )))  | US-PGPUB; USPAT | OR | ON | 2008/03/21 21:46 |

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| S42 | 36 | "369".clas. and (((focus near3 (captur\$3 range clos\$3 search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) )))                 | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:47 |
| S41 | 32 | "369".clas. and (((focus near3 (capture clos\$3 search\$3 pull\$1in pulling\$in pull\$3 lead \$in)) same (((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) )))                         | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:47 |
| S40 | 32 | "369".clas. and (((focus near3 (clos\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)) same (((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) )))                                 | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:47 |
| S43 | 44 | "369".clas. and (((focus \$4 in\$1focus) near3 (captur\$3 range clos\$3 search\$3 pull\$1in pulling\$in pull\$3 lead \$in)) same (((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (down downward away farther)) ))) | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:48 |

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| S45 | 58 | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) and (tim\$3 with ((revers\$3 switch \$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (distant farther further down downward away farther)) )))   | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:52 |
| S44 | 6  | "369".clas. and ((focus near3 (search\$3 pull \$1in pulling\$in pull\$3 lead\$in)) same (tim\$3 with ((revers\$3 switch \$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (distant farther further down downward away farther)) )))  | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>21:52 |
| S46 | 59 | "369".clas. and ((focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)) and (tim \$3 with ((revers\$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (distant farther further down downward away farther)) )))   | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:01 |
| S48 | 17 | "369".clas. and ((focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)) same (((fes fok fsum sum summation fzc threshold (level near2 (reference predetermined)) (focus near2 (error signal)) amplitude quantity voltage) with ((revers \$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward | US-PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:11 |

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|     |     | approach\$3) with<br>(distant farther further<br>down downward away<br>farther)) ))))   |                        |    |    |                     |
| S47 | 61  | "369".clas. and ((focus<br>near3 (lock\$3 search\$3<br>pull\$1in pulling\$in pull<br>\$3 lead\$in)) and ((fes<br>fok fsum sum<br>summation fzc<br>threshold (level near2<br>(reference<br>predetermined)) (focus<br>near2 (error signal))<br>amplitude quantity<br>voltage) with ((revers<br>\$3 switch\$3 chang\$3)<br>near3 (direction ((up<br>closer upward toward<br>approach\$3) with<br>(distant farther further<br>down downward away<br>farther)) ))))                        | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:11 |
| S50 | 106 | "369".clas. and ((focus<br>near3 (lock\$3 search\$3<br>pull\$1in pulling\$in pull<br>\$3 lead\$in)) and<br>((surface plane layer<br>fes fok fsum sum<br>summation fzc<br>threshold (level near2<br>(reference<br>predetermined)) (focus<br>near2 (error signal))<br>amplitude quantity<br>voltage) with ((revers<br>\$3 switch\$3 chang\$3)<br>near3 (direction ((up<br>closer upward toward<br>approach\$3) with<br>(distant farther further<br>down downward away<br>farther)) )))) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:12 |

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| S49 | 23 | "369".clas. and ((focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)) same ((surface plane layer fes fok fsum sum summation fzc threshold (level near2 (reference predetermined)) (focus near2 (error signal)) amplitude quantity voltage) with ((revers \$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (distant farther further down downward away farther)) ))) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:12 |
| S51 | 2  | "369".clas. and ((focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)) same ((tim \$3 surface plane layer fes fok fsum sum summation fzc threshold (level near2 (reference predetermined)) (focus near2 (error signal)) amplitude quantity voltage) with (invert\$3 near4 (voltage output signal))))   | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/21<br>22:34 |
| S55 | 3  | ("369" "720").clas. and (((rfok fok ((amplitude quantity sum summation) near6 (threshold ((above below higher lower less \$2 greater compar\$3) near3 (predetermined reference level)))) same ((revers\$3 switch \$3 chang\$3) near4 (movement mov\$3 direction) near3 (head search\$3 lens pick\$1up (pick adj1 up))))  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/23<br>11:47 |

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| S54 | 1  | ("369" "720").clas. and (((focus\$4 focal) near3 (search\$3 pull\$1in (pull \$3 adj1 in))) same (((amplitude quantity) near3 (less\$2 below) near3 (threshold level)) (s\$1wave s \$1shaped s\$1curve s \$1shape ("s" adj1 (shap \$3 curve wave)) (zero adj1 cross\$3))) with (revers\$3 ((switch\$3 chang\$3 opposite) near3 direction))))                                      | US-PGPUB;<br>USPAT | OR | ON | 2008/03/23<br>11:47 |
| S53 | 0  | ("369" "720").clas. and (((focus\$4 focal) near3 (search\$3 pull\$1in (pull \$3 adj1 in))) same ((pass\$3 near3 (layer surface)) same (revers \$3 ((switch\$3 chang\$3 opposite) near3 direction))))   | US-PGPUB;<br>USPAT | OR | ON | 2008/03/23<br>11:47 |
| S52 | 0  | ("369" "720").clas. and (((focus\$4 focal) near3 (search\$3 pull\$1in (pull \$3 adj1 in))) same ((pass\$3 near3 (target \$3 near3 (layer surface))) with (revers \$3 ((switch\$3 chang\$3 opposite) near3 direction))))  | US-PGPUB;<br>USPAT | OR | ON | 2008/03/23<br>11:47 |
| S56 | 17 | ("369" "720").clas. and (((focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull\$3 lead \$in)) same ((fes fok fsum sum summation fzc threshold (level near2 (reference predetermined)) (focus near2 (error signal)) amplitude quantity voltage) with ((revers \$3 switch\$3 chang\$3) near3 (direction ((up closer upward toward approach\$3) with (distant farther further | US-PGPUB;<br>USPAT | OR | ON | 2008/03/23<br>11:48 |



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|     |    | down downward away farther)) )))  |                 |    |    |                  |
| S57 | 52 | ("369" "720").clas. and ((fast\$2 quick\$2 efficient\$2) with (focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)))  | US-PGPUB; USPAT | OR | ON | 2008/03/23 11:50 |
| S58 | 75 | ("369" "720").clas. and ((fast\$2 quick\$2 efficient\$2 (time near3 reduc\$4)) with (focus near3 (lock\$3 search\$3 pull\$1in pulling\$in pull \$3 lead\$in)))  | US-PGPUB; USPAT | OR | ON | 2008/03/23 11:55 |
| S59 | 80 | ("369" "720").clas. and ((switch\$3 select\$3) near5 (((ramp\$3 search \$3) near4 (fe fes (focus near3 (signal error)))) (open near3 close near3 focus\$4)))  | US-PGPUB; USPAT | OR | ON | 2008/03/23 18:34 |
| S60 | 25 | ("369" "720").clas. and ((switch\$3 select\$3) near5 (((ramp\$3 search \$3) near4 (fe fes (focus near3 (signal error)))) (open near3 close near3 focus\$4))) and ((second two multiple multi) near3 ((data information record\$3 writ\$3) near3 (surface layer))) | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:11 |
| S61 | 2  | ("369" "720").clas. and ((detect\$3 near3 ((upper second) near3 layer)) with ((switch\$3 chang\$3 ramp\$3) near4 (decend\$3 (mov \$3 near3 (opposite away further farther down downward\$2) direction)))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:27 |

|     |    |  |                 |    |    |                  |
|-----|----|--|-----------------|----|----|------------------|
| S62 | 6  | ("369" "720").clas. and (((detect\$3 near3 ((upper second) near3 layer)) with ((switch\$3 chang\$3 ramp\$3 lens) near4 (decend\$3 (mov\$3 near3 (opposite away further farther down downward\$2)) direction))))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:29 |
| S63 | 32 | ("369" "720").clas. and (((detect\$3 pass\$3 local\$3 determin\$5) near3 ((upper second) near3 (layer surface plane))) with ((switch\$3 chang\$3 ramp\$3 lens) near4 (decend\$3 (mov\$3 near3 (opposite away further farther down downward\$2)) direction))))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:32 |
| S64 | 5  | ("369" "720").clas. and (((detect\$3 pass\$3 local\$3 determin\$5) near3 ((upper second) near3 (layer surface plane))) with ((switch\$3 chang\$3 ramp\$3 lens) near4 (decend\$3 (mov\$3 near3 (opposite away further farther down downward\$2)) direction)))) and (((focus\$4 focal) near3 (search\$3 pull\$1in (pull\$3 adj1 in)))) | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:39 |
| S65 | 0  | ("369" "720").clas. and ((second two multiple multi) near3 ((data information record\$3 writ\$3) near3 (surface layer))) and (fe fes (focus near3 (signal error))) and ((instruct\$3 near3 (revers\$3 ((switch\$3 chang\$3) near3 (mov\$3 direction)))) same (((focus\$4 focal) near3 (search\$3 pull\$1in (pull                     | US-PGPUB; USPAT | OR | ON | 2008/03/24 09:48 |

|     |    |   |                        |    |    |                     |
|-----|----|---|------------------------|----|----|---------------------|
|     |    | (\$3 adj1 in))))  |                        |    |    |                     |
| S67 | 20 | ("369" "720").clas. and ((second two multiple multi) near3 ((data information record\$3 writ\$3) near3 (surface layer))) and (fe fes (focus near3 (signal error))) and (((revers \$3 ((switch\$3 chang \$3) near3 (mov\$3 direction)))) same (((focus\$4 focal) near3 (search\$3 pull\$1in (pull \$3 adj1 in))))                  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>09:49 |
| S66 | 0  | ("369" "720").clas. and ((second two multiple multi) near3 ((data information record\$3 writ\$3) near3 (surface layer))) and (fe fes (focus near3 (signal error))) and ((controll \$3 near5 (revers\$3 ((switch\$3 chang\$3) near3 (mov\$3 direction)))) same (((focus\$4 focal) near3 (search\$3 pull\$1in (pull \$3 adj1 in)))) | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>09:49 |
| S68 | 8  | ("369" "720").clas. and (timer with (fok))  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>12:04 |
| S69 | 1  | ("369" "720").clas. and ((monitor\$3 detect\$3 determin\$5) near5 ((fall \$3 near3 fok))  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>12:42 |
| S70 | 3  | ("369" "720").clas. and ((monitor\$3 detect\$3 determin\$5) near5 ((fall \$3 ((high "1") near2 ("0" low))) near3 fok))  | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>12:43 |
| S71 | 3  | ("369" "720").clas. and ((monitor\$3 detect\$3 determin\$5) near5 ((fall \$3 ((high "1") adj2 ("0" low))) near3 fok))   | US-<br>PGPUB;<br>USPAT | OR | ON | 2008/03/24<br>12:44 |

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|-----|-----|--|-----------------|----|----|------------------|
| S72 | 3   | ("369" "720").clas. and ((monitor\$3 detect\$3 determin\$5 count\$3) near5 ((fall\$3 ((high "1") adj2 ("0" low))) near3 fok))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:45 |
| S75 | 253 | ("369" "720").clas. and ((count\$3) near5 (((fall\$3 near3 edge) ((high "1") adj2 ("0" low))) )  | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:46 |
| S74 | 384 | ("369" "720").clas. and ((count\$3) near5 ((fall\$3 ((high "1") adj2 ("0" low))) )   | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:46 |
| S73 | 0   | ("369" "720").clas. and ((count\$3) near5 ((fall\$3 ((high "1") adj2 ("0" low))) near3 fok))   | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:46 |
| S76 | 38  | ("369" "720").clas. and ((count\$3) near5 (((fall\$3 near3 edge) ((high "1") adj2 ("0" low))) ) near6 pulse)   | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:47 |
| S77 | 102 | ("369" "720").clas. and (count\$3 with pulse with ((fall\$3 near3 edge) ((high "1") adj2 ("0" low))))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:48 |
| S78 | 40  | ("369" "720").clas. and ((count\$3 with pulse with ((fall\$3 near3 edge) ((high "1") adj2 ("0" low)))) same (count\$3 with pulse with ((rising\$3 near3 edge) (("0" low) adj2 (high "1")))))                                       | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:49 |
| S79 | 1   | ("369" "720").clas. and ((count\$3 with pulse with ((fall\$3 near3 edge) ((high "1") adj2 ("0" low)))) same (count\$3 with pulse with ((rising\$3 near3 edge) (("0" low) adj2 (high "1")))) same (alternat\$5 another option\$5 )) | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:52 |

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| S80 | 2 | ("369" "720").clas. and ((count\$3 with pulse with ((fall\$3 near3 edge) ((high "1") adj2 ("0" low)))) same (count\$3 with pulse with ((rising\$3 near3 edge) ((0" low) adj2 (high "1")))) same (alternat\$5 another option\$5 either)) | US-PGPUB; USPAT | OR | ON | 2008/03/24 12:53 |
| S81 | 3 | ("369" "720").clas. and ((count\$3 increment \$3) with fok) and ((second two multiple multi) near3 ((data information record\$3 writ\$3) near3 (surface layer)))  | US-PGPUB; USPAT | OR | ON | 2008/03/24 13:13 |
| S83 | 1 | ("369" "720").clas. and (((determin\$5 count\$3 increment\$3 detect\$3) with ((number two three) near3 ((data information record\$3 writ\$3) near3 (surface layer)))) same fok)   | US-PGPUB; USPAT | OR | ON | 2008/03/24 13:16 |
| S82 | 0 | ("369" "720").clas. and (((determin\$5 count\$3 increment\$3 detect\$3) with ((number two three) near3 ((data information record\$3 writ\$3) near3 (surface layer))) with fok)  | US-PGPUB; USPAT | OR | ON | 2008/03/24 13:16 |
| S84 | 1 | ("369" "720").clas. and (count\$3 near3 fok)  | US-PGPUB; USPAT | OR | ON | 2008/03/24 13:22 |

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